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ON THE COVER

Large antennae enable the male luna moth to sense a potential mate up to six miles away! Learn more in The Field Museum's new exhibition, The Machine Inside: Biomechanics, opening March 12, 2014.

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1400 South Lake Shore Drive Chicago, IL 60605-2498 312.922.9410 fieldmuseum.org

dearmemb

Happy New Year, Museum friends and family!

The 1893 World's Columbian Exposition drew more than 25 million visitors to Chicago. It was a moment of great accomplishment and optimism for our city and the world.

Created to house the original collections of the exposition,
The Field Museum became the living legacy of the 1893
world's fair. Today, The Field maintains those incredible
objects—in addition to millions more collected in the past
120 years—in a safe home. From mummies and dinosaur
fossils to insects and birds, the vast collections are studied
in previously unforeseen ways. New technologies and innovations make our specimens and objects crucial to research.

We share this story through *Opening the Vaults: Wonders* of the 1893 World's Fair (page 10), celebrating the history of your Museum and acknowledging the important role of Field members in this legacy.

While honoring our founding, we invite you to look ahead to the next milestone—our 125th Anniversary in 2018.

Museum Trustees have begun a process of planning the next chapter of your great museum, and as their plan develops, you will be among the first to know of it.



Thank you for endorsing
The Field Museum mission
as a member. I look forward
to welcoming you to the fair
in the new year!

RICHARD W. LARIVIERE, PHD

PRESIDENT AND CEO

Opening at **The Field Museum**

A preview of upcoming exhibitions

Compiled by Franck Mercurio, Editor







THE MACHINE INSIDE: **BIOMECHANICS**

From the inside out, every living thing

March 12, 2014 through January 4, 2015

is a machine built to survive. Investigate the marvels of natural engineering in The Separated from Africa some 160 million Machine Inside: Biomechanics. Explore how plants and animals sustain the crushing forces of gravity, the pressure of wind and water, and the attacks of predators. See how organisms endure extreme temperatures, propel themselves across land and through water, and circulate Discover Madagascar's ancient species their own life-sustaining fluids. Discover Earth's greatest inventor-evolution-in illustrator Velizar Simeonovski. Witness this engaging exhibition featuring hands-on interactives and rare specimens from The Field Museum's collections. (See pages 4 and 5 for more.)

LICHENS

Opening in 2014

Look closely! The miniature world of lichens is all around you. Neither plants, nor animals, lichens are fascinating composite organisms of fungi and algae. Gorgeous field photographs, botanical illustrations, and actual specimens tell the story of lichens and of the adventurous Field Museum scientists who study them. Discover what lichens are, where they grow, and how they work. Learn about the benefits of lichens from a human perspective: their use in dyes, perfumes, poisons, and even food!

VODOU

October 25, 2014 through April 26, 2015

Shaped by diverse cultural influencesand resistance to and triumph over slavery-Haitian Vodou is a spiritual practice far removed from the myths manufactured by Hollywood. Forget about zombies and "voodoo dolls"-this exhibition demystifies Vodou, a tradition that remains very much alive in Haiti and among Haitians abroad. Meet the practitioners of this spiritual and cultural movement and learn about their beliefs and rituals while viewing over 300 artifacts from the renowned Marianne Lehmann Collection. ITF



SECRETS

OF MADAGASCAR

years ago, the island of Madagascar

has developed a unique evolutionary

history. Secrets of Madagascar presents

a glimpse of the island's lost ecosys-

imagined by Field Museum scientists.

through the vivid imagery of scientific

the debate over Madagascar's past

extinctions-weighing both natural

implications for our world today.

and human causes-and consider the

tems and extinct land animals as

Opening August 2014

VELIZAR SIMEONOVSKI / WINDOWS INTO THE EXTRAORDINARY









A "NUTS AND BOLTS" LOOK AT

OPENING MARCH 12, THE FIELD MUSEUM'S NEWEST EXHIBITION,
THE MACHINE INSIDE: BIOMECHANICS, EXPLORES ANIMALS AND PLANTS AS MACHINES
BUILT FOR SURVIVAL, COMPLETE WITH PUMPS, PIPES, INSULATION,
MOTORS, SPRINGS, AND INTELLIGENCE GATHERING DEVICES.

Based on current scientific research, the exhibition uses real specimens, life-like models, amazing video footage, and interactive displays to investigate how cheetahs run so fast and fleas jump so far; how the bite force of an extinct fish made it a top predator; how a toucan stays cool in the jungle; how a Venus fly trap detects its next meal; and how many other organisms function as machines in order to survive, move, and discover.

The ability to defend against external pressures—like the forces of wind and water and the pull of gravity—is key to survival. This capacity often depends on flexibility; skin stretches, bones flex, and cartilage compresses and bounces back. *Biomechanics* also features an array of diverse rigid structures—including bones and shells—that demonstrate how the dome shape is one of the best protectors as exemplified by the human skull, the tortoise shell, and the horseshoe crab carapace.

IMAGES (ABOVE, LEFT TO RIGHT): © BARRY PETERS; Z95153_32BD / JOHN WEINSTEIN; © JEMBE; GN91868_34AD / JOHN WEINSTEIN; © CATHY KEIFER | DREAMSTIME.COM; © JONAS MERIAN; Z95205_21AD / JOHN WEINSTEIN

The never-ending race to distribute life-sustaining supplies to every cell in the body also poses a challenge to survival. Living things use pumps, pipes, and pressure to move air and fluids where they're needed most. An exhibition highlight features a giraffe's heart and shows how the organ's unique structure enables it to pump blood up the animal's long neck to its brain. You can compare other life-like models of animal hearts, including those of a mammal, bird, reptile, amphibian, and fish.

With variations of size, shape, color, and insulation, animals can stop the heat and cold from invading. Discover how a toucan's beak, a fox's ears, and a duck's feet all act as radiators to regulate temperature. Test out a thermal camera and learn how much heat your clothes retain compared to other animals covered in fur, blubber, or feathery down.









HE NATURAL WORLD

By Nancy O'Shea, Public Relations Director

Motors and levers (in the form of muscles, bones, and joints) set internal machinery in motion so animals can hunt and explore. Biomechanics takes a close look at the design and function of many types of jaws, including a mechanical model of an extinct fish called Dunkleosteus (pictured above) that demonstrates the sea monster's incredible bite force.

Animals that move through air and water have evolved sleek forms that harness the power of fluid dynamics to propel themselves. In a unique interactive, you can experience "flying" by flapping a long and short wing. The activity demonstrates how short wings allow for a faster start but require more energy to sustain flight; conversely, longer wings provide a slower start, but eventually use less energy.

Plants and animals gather information using an array of senses necessary for survival. Scientists are just beginning to understand some of these. For example, sea turtles sense magnetic impulses,

and the hammerhead shark can detect electricity. A special touchscreen interactive investigates how animal eyes have independently evolved many times with different mechanical configurations.

Biomechanics also presents examples of biomimicry, man-made innovations inspired by mechanisms found in nature. Discover how burrs found in dog fur inspired the invention of Velcro, how prosthetic limbs are modeled on the action of human muscles and tendons, and how humans have mined and mimicked nature's designs in other ways to improve our lives.

By delving deep, speeding things up, slowing things down, and presenting the inner-workings of plants and animals, *Biomechanics* gives a new appreciation for the machine inside all living things. **ITF**

Biomechanics: Members' Preview

See *The Machine Inside: Biomechanics* before the general public! The exhibition will be open exclusively for members on Members' Nights, March 6 and 7. A limited number of exhibition tickets will be available at the registration desks on a first-come, first-served basis each evening. Reservations are required for Members' Nights. To RSVP, contact Member Services at 312.665.7705 or visit **fieldmuseum.org/membership**.

The Machine Inside: Biomechanics was developed by The Field Museum, Chicago, in partnership with the Denver Museum of Nature & Science.

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Announcing the FIELD LOYALTY CLUB

By Catie Boehmer, Individual Giving Coordinator

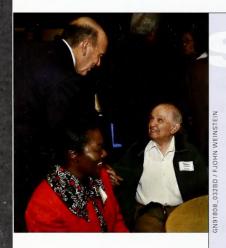
THE FIELD MUSEUM IS PROUD TO ANNOUNCE A NEW RECOGNITION PROGRAM. The Field LOYALTY Club has been

established to honor supporters of the Museum who have shown their commitment for 20 or more consecutive years and whose loyalty sets a philanthropic example for fellow supporters, donors, members, visitors, and friends of The Field.

Says Field Museum President and CEO, Richard Lariviere, "It is loyalty-loyal visitors, loyal members, loyal advocates, of all ages, interests, and involvement-that nourishes and sustains the Museum. Without your enthusiastic support, The Field could not be the 120-year-old, world-class cultural and research institution that it is today, and will be for years to come."

We are so pleased to have the opportunity to provide much-deserved recognition to the Field LOYALTY Club members, who receive a pin, certificate, and listing in the next issue of In The Field. You are the heart of the Museum, and for that, we thank you! ITF

To learn more about the Field LOYALTY Club or how to support your Museum, contact Angela Perillo, Member Benefits Manager, at 312.665.7700 or membership@fieldmuseum.org.



Never one to miss the popular Founders' Frontiers Symposium and Dinner, Harry even attended on his birthday! President Richard Lariviere wishes Harry a Happy 96th earlier this year as Eva King looks on.

HARRY AXELROD

"It goes all the way back to when I was about 12 years old," says long-time member Harry Axelrod of his commitment to The Field Museum. "I used to visit the Museum by myself. My favorite was always the Egyptian exhibits. I was intrigued by that at an early age."

As an adult, Harry joined The Founders' Council, a leadership level giving society, in 1992. His wife, Margaret Axelrod, volunteered with the Museum's Education Department. "She loved the Museum and the work she did," Harry remembers fondly. When Margaret passed away in 1999, Harry and John McCarter (previous Museum president) worked together to renovate the Volunteer Lounge, a project financed by Harry and dedicated to Margaret.

Today, Harry is still a frequent visitor to the Field. "I've traveled a lot. I've been all over the world. Now that I'm 96 and do not travel as frequently, I can come to The Field to continue discovering the world-without leaving Chicago. That, to me, is why I am loyal to this remarkable institution."



MEMBERS' NIGHTS 2014

Get to the Museum-Under the Speed Limit!

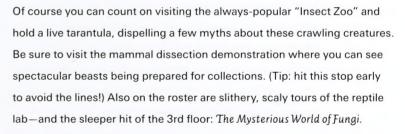
By Mark Alvey, Science Communications Manager



EVERY FIELD MUSEUM STAFFER HAS A FAVORITE MEMBERS' NIGHT STORY: six-year-old dinosaur experts, the escaped tarantula, "missed connections" that reconnected later. My story involves getting stopped for speeding after a four-hour Members' Night marathon with my kids. The officer asked me where I'd been. I told him. He broke into a big smile. "I was there too!" he said. "Wasn't it great?" Members' Nights are great—as evidenced by the fact that the officer didn't

give me a ticket that evening. When you're still bathed in the afterglow of a night at the Museum, what's a couple of miles over the speed limit?

This year, Chicago's biggest natural history party will boast new features and old favorites. Among the new: our botanists will put guests to work gathering data on tiny plants for a research project; the paleontology staff will showcase fossils from Wyoming's Washakie Basin in their updated collection facility; anthropology conservators will demonstrate preventive treatment on our historic Malvina Hoffman bronze sculptures; and our Exhibitions Department will host an insider's look at the work of Native American artist Bunky Echo-Hawk, currently featured in a Museum exhibition.



If that's not enough excitement for you, the latest exhibitions, face-painting, crafts, conversation, and cocktails give the evening that extra oomph. But it's wandering the miles of normally "hidden" halls and labs that make Members' Nights a unique experience. So wear comfortable shoes, come early, stay late, see everything, leave exhausted, and-unless you can count on being pulled over by a fellow Field Museum member—watch your speed! ITF





THURSDAY+FRIDAY

Reservations for Members' Nights are required and space is limited.

Please RSVP with Member Services at 312.665.7705 or by

visiting fieldmuseum.org/membership.











Bringing the Museum to the Classroom-Virtually!

VIRTUAL VISITS FROM THE FIELD BRINGS THE MUSEUM DIRECTLY INTO THE CLASSROOM.

> This interactive digital experience blends a behind-the-scenes look at The Field's collections with an in-depth examination of a particular specimen.

The new program, launched this past fall, enables middle and high school students to virtually visit the Museum's mammal wet lab-via webcast-and meet scientist Bill Stanley, Director of Collections. Students can watch as Stanley conducts a squirrel dissection—live on camera! Throughout the dissection process, viewers can ask questions either through chat or webcam.

In addition to the anatomy lesson, students learn about the process of collecting specimens and acquisitioning them for The Field. As Stanley prepares the specimen, he describes how scientists at the Museum-and from across the globeuse The Field's collections for research, further contributing to scientists' understanding of the natural world.

By Eve Gaus, Digital Learning Manager

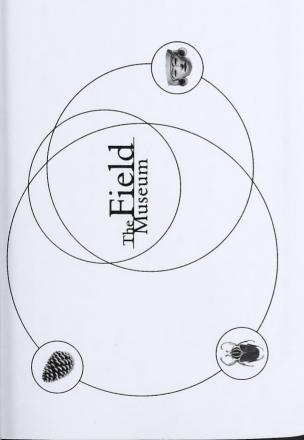
Outside of the live webcasts, participants receive supplemental educational activities that connect Field Museum research with learning in the classroom. In alignment with the national Next Generation Science Standards, these classroom activities are available in two modules: anatomy and research. In the first, students explore lessons in basic and comparative anatomy. In the second, they play the role of a scientist, making observations and collecting data on wildlife in their area. Students can then upload their data to a collective Google map and compare data from their peers collected across the country.

Building on the success of the current Virtual Visits sessions, the Museum's Education Department will expand the program to include other areas of research throughout the Museum with the ultimate goal of engaging even more teens in science and honing their observational and analytical skills. ITF

Major Sponsor: Target



For more information about Virtual Visits from The Field, please see fieldmuseum.org/virtualvisits.



THE ANNUAL FUND

Thank You for your generosity!

A gift to the Annual Fund helps sustain Field Museum research, exhibits, and education. Thank you for your partnership and support.

☐ I/We would like to support The Field Museum beyond my/our membership by making a contribution to	the Annual Fund at the following level:

- | Field Explorer | \$2,500 and more | Field Adventurer | \$250−\$499 | Field Explorer | \$1,000−\$2,499 | Field Contributor | \$1−\$249 | Field Naturalist | \$500−\$999 | Other | \$1−\$249 | |
- ☐ I/We currently support The Annual Fund and would like to make an additional contribution of \$_____
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Double the impact of your gift and visit www.fieldmuseum.org/support/matching-gifts to see if your employer has a matching gifts program.

Connecting Museum and Community: The Philippines Collection

CONNECTING COMMUNITIES TO THEIR CULTURAL HERITAGE

IS ONE OF THE MOST REWARDING ASPECTS of curating and managing

anthropology collections. It is a unique privilege to care for remarkable artifacts from diverse places around the world.

Increasingly, it is common for curators and collections staff to interact and collaborate with representatives and descendants of peoples whose heritage is cared for by the Museum. Examples include tribal consultation visits, field collecting trips—where contemporary objects are sought and new partnerships

made—and joint exhibition projects such as Ruatepupuke II, the Maori wharenui (meeting house). The Museum has a nearly 40-year active partnership with co-curators from Tokomaru Bay in New Zealand, based on two traditional New Zealand Maori ideas: taonga tuku iho (heritage treasures) and kai tiaki (stewardship).

Using the Maori partnership as a model, the Museum is working with Chicago's large and active Filipino community to co-curate the Philippine Islands collection. Composed of approximately 10,000 ethnohistoric artifacts, much of the collection was acquired in the early twentieth century by Field Museum anthropologists. While Museum staff are knowledgeable

By Jamie Kelly, Head of Anthropology Collections and Christopher Philipp, Regenstein Collections Manager

about the collections, they cannot shoulder the responsibilities of care and interpretation alone. The Museum's Integrative Research and Collections staff is developing a partnership with members of the Filipino community in Chicago to assist in the stewardship of the objects housed at the Museum and the preservation of narratives (or kuwentos in Tagalog) associated with Filipino heritage.

Through co-curation, we hope to make these and other objects more widely known and accessible through digitization and exhibitions. These efforts help fulfill our goal of reshaping the Museum's collections into vital heritage resources—not just for Filipinos here in Chicago, but for peoples all around the world. ITF

for peoples all around the w

IMAGES, BELOW-JOHN WEINSTEIN
A113474C (LEFT); A114814D_010 (RIGHT)



Members of Chicago's Filipino community volunteer alongside Field Museum staff in the Museum's collections storage area.







By Franck Mercurio, Editor

REIMAGINING THE WORLD'S FAIR

AT THE TIME OF THE 1893 WORLD'S COLUMBIAN EXPOSITION. MOTION PICTURE TECHNOLOGY WAS IN ITS INFANCY. NO FILM FOOTAGE EXISTS OF THE CHICAGO FAIR. But what if early



Providing spectacular views of the fair and the city, the Ferris Wheel (above) was a must-see attraction at the World's Columbian Exposition.

The Field Museum's staff photographer, John Weinstein, poses in period costume for the camera (top, left). Through the magic of digital technology, his figure is placed inside a scene from the 1893 world's fair (top, right).

cinematographers had captured the fair on celluloid? What would the images have looked like? The Exhibitions Department at The Field Museum explored this possibility when developing Opening the Vaults: Wonders of the 1893 World's Fair.

The stars of Opening the Vaults are the more than 200 original artifacts and specimens from The Field Museum's collections that were first exhibited at the Chicago exposition. But digital media components inside the exhibition compliment the objects and create an immersive. time-travel experience.

"The goal is to bring the fair to life," says Patrick Kohlhagen of the Exhibitions Department's Media and Interactives Division. He and his teamincluding Emily Ward, Greg Mercer, and Simon Watson-created large-scale "motion murals" that merge vintage photographs of the fair with digital video of modern-day costumed actors, most of whom are Field Museum staff. The results mimic the qualities of early motion pictures, reconstructing the sights-and even the sounds-of the fair.

The exhibition's first gallery captures the energy and atmosphere of 1893. "We want visitors to feel like they are a part of the fair," says Kohlhagen. To that end, a floor-to-ceiling projection brings to life a vintage-style poster featuring the fair's skyline that changes as day turns to night. Moving silhouettes of fairgoers project onto the wall and mix with shadows cast by actual museum visitors. Crowd noises and ragtime music (which was played on the fair's Midway) heighten the authenticity of the experience.

In the next gallery, two double-sided projections depict scenes from the fair. One presents panoramas, the other close-up scenes or "short stories" of fair life reimagined. For the panoramic scenes, the Media team painstakingly reconstructed the exposition's famous Ferris Wheel using digital 3D modeling. Through the magic of digital video, the Ferris Wheel appears to rotate against the sky, freed from the stasis of print photographs.

In addition to the large-scale projections, the Media and Interactives Division also developed two interactive displays. One features the gamelan, a traditional Indonesian ensemble instrument composed of up to 40 separate parts. Using sounds recorded from original instruments, visitors can "play" a digital version of the same gamelan that was showcased at the Exposition. The second interactive features the CT scans of a Peruvian mummy that was displayed at the fair. Visitors can virtually explore the mummy by zooming, rotating, and segmenting the imagery to expose different layers to examine the body within.

In 1895, just a few years after the Chicago exposition, movie technology came into its own. Public showings of motion pictures made with celluloid film took place in Paris, Berlin, and New York that year. Not until 1900 was a world's fair-the Exposition Universelle in Paris—extensively captured on film. But thanks to the Museum's talented Media and Interactives team, we can better imagine what the 1893 World's Columbian Exposition might have looked like in motion TTE















Early Motion Pictures at the 1893 Exposition

Among the many attractions of the World's Columbian Exposition's Midway was the extravagantly named "Zoöpraxographical Hall," credited by historians as the first-ever commercial movie theater. It was here that photographer Eadweard Muybridge lectured on "The Science of Animal Locomotion" and illustrated his presentations with moving images using one of the first motion picture projectors: the zoopraxiscope. Muybridge's invention did not use celluloid film; rather, it projected a rapid sequence of individual images painted onto glass disks. The spinning glass disks created the illusion of moving figures, including galloping horses, climbing monkeys, and dancing ladies, all pioneering studies of how animals move—a branch of today's science of biomechanics.



World's Fair Mobile Tour App

This past fall, The Field Museum launched its first-ever mobile tour application, available for download on both Apple and Android devices. The app gives visitors a closer look at objects from the 1893 World's Columbian Exposition: both those on view in the Museum's exhibition halls and those hidden away in collections. With the app, visitors can follow themed tours created by Museum staff. Or, they can curate their own tours by selecting from a list of specimens and artifacts. Augmented reality, audio, and video—including appearances by Museum scientists-bring these world's fair objects to life! To download the app, visit worldsfair.fieldmuseum.org.

Opening the Vaults: Wonders of the 1893 World's Fair was created by The Field Museum.











DISCOVERING NEW

In the Field: Thor's Hero Shrew

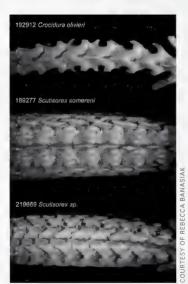
By Franck Mercurio, Editor

WE USUALLY DON'T ASSOCIATE THE HUMBLE, MOUSE-SIZED SHREW
WITH THE WORD "HERO." But there are at least two species—one well known and the other
newly discovered—that deserve the moniker.



Western scientists have known about the hero shrew (Scutisorex somereni) for over 100 years. This mighty mammal inhabits the forests of Burundi, Rwanda, Uganda, and the Democratic Republic of Congo. For generations, the Mangbetu people of the Congo have appreciated the hero shrew for its amazing strength. One 19th century observer witnessed a demonstration of the animal's power as a Mangbetu man stood on a hero shrew's back—for five minutes—and the creature walked away, miraculously unharmed.

The secret to the hero shrew's fortitude resides not in miracles, but in its robust spinal column. The backbone contains ten to eleven interlocking lumbar vertebrae, giving the diminutive animal incredible strength.



The functional significance of this oversized backbone is not known. However, Bill Stanley, the Museum's Director of Collections, and his colleagues hypothesize the hero shrew uses its strong spine to pry apart the bracts of palm trees and lift stones and logs to access grubs and worms unavailable to other animals.

Until recently, mammalogists thought that the hero shrew was an anomaly. Like the aardvark and the platypus, it occupied an evolutionary niche of its own. For decades, there were no known "sister species" that could link the hero shrew to its more conventional cousins.

But then came Bill Stanley's discovery this past summer. Stanley collected the specimen while on a scientific expedition to the central Congo region. Molecular testing determined that Stanley's shrew is a *Scutisorex*, but examination of the spine showed it to be different than the original hero shrew—an entirely new species.

The anatomy of this new shrew—named "Thor's hero shrew" (Scutisorex thori)—may suggest an incremental evolution of a backbone that links more standard shrews with the hero shrew. As such, it is an important discovery—a potential "missing link"—that offers the prospect of further research into evolutionary adaptation. ITF

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In Collections: **Olinguito**

By Emily Graslie, Chief Curiosity Correspondent

LAST AUGUST, THE SMITHSONIAN'S NATIONAL MUSEUM OF NATURAL HISTORY (NMNH) announced the discovery of a new species of carnivore: the cat-sized olinguito (Bassaricyon neblina) of South America. Surprisingly, the discovery was made not in the wild, but within the collections of The Field Museum.

Kristofer Helgen, PhD, the NMNH's Curator-in-Charge (Division of Mammals), discovered the olinguito on a research trip to The Field. Looking through specimen drawers, Helgen's keen observational skills led him to believe that he had something novel on his hands. Later molecular analysis confirmed a new member of the raccoon family, one that scientists had not yet recognized as a unique species in the wild.

How often does a serendipitous discovery like this occur? There exists a misconception that discoveries of new species happen as "eureka" moments only in the wild. In nearly all cases, however, new species are confirmed after researchers have had time to analyze genetic data or make comparative observations of different specimens within the collecting museum.

This kind of after-the-fact discovery is why I find so much value and wonder in museum collections: they are truly the gift that keeps on giving. If we can't be in the field paving new paths of discovery, then perhaps we can pull open an unfamiliar drawer and find something new to science, previously unknown despite residing in a cabinet or on a shelf for decades.



After a field expedition, collected specimens and artifacts are accessioned, preserved, and along the way, identified by researchers. If a collected specimen is accidentally misidentified, the acknowledgement of its uniqueness may be delayed. To give an example, last year a new species of venomous sea snake was discovered floating in formaldehyde in a museum in Copenhagen after it had already been there for over one hundred years!

In the case of the olinguitos, they were initially lumped in with their larger and less-fluffy cousins, the olingos (Bassaricyon gabbii). Fifty years after the olinguito's initial collection by Field Museum scientists, its true identity was realized. Now the olinguito has a very special place in the permanent collection as the spark that ignited a fire of discovery, all within Field Museum walls, ITE 795213 013D / KAREN BEAN



Emily Graslie, YouTube personality and the Museum's first-ever Chief Curiosity Correspondent, hosts the popular web series, The Brain Scoop. To learn more about the hero shrew and the olinguito, see Emily's interviews with Bill Stanley at youtube.com/thebrainscoop.

Before the Dinosaurs:

Tracking the Reptiles

of Pangaea

By Jillian Mayotte,
Exhibitions Projects Coordinator

By Jillian Mayotte,

WE'RE ALL FAMILIAR WITH DINOSAURS—BUT WHAT ABOUT THE REPTILES THAT PRECEDED THEM? A new exhibition presents

the adventures of Field Museum scientists and their collaborators who track the remains

of these ancient creatures.

Meet Ken Angielczyk, PhD, Sterling Nesbitt, PhD, and Christian Sidor, PhD, three paleontologists making surprising discoveries about life before the dinosaurs. Follow them from lab to field as they travel over 8,000 miles to the Ruhuhu Basin in southern Tanzania, a site rich with fossils from the period just before and just after the Permian extinction—the largest extinction event in Earth's history—about 252 million years ago.

Finding fossils in the field, especially new species, is no easy task. In Tracking the Reptiles of Pangaea, visitors will play the part of scientists, learning about the challenges of fieldwork. Start your journey at the Museum and choose dig sites using satellite photos. Next, pack your bags for the field; from chisels and brushes to tents and food, there's a lot that you'll need to set up camp. Once there, examine rock outcrops and spot the fossils hidden within. Finally, bring your discoveries back to the lab for identification and study.

Angielczyk, Nesbitt, and Sidor have been trekking to Tanzania since 2007. It is here that the trio-each with different specialties and training, but all working toward a common goal-discovered Asilisaurus kongwe, a new species of archosaur, the group of reptiles that includes dinosaurs, crocodiles, birds, and their extinct



relatives. Asilisaurus is a very close relative of dinosaurs, and its age demonstrates that the first dinosaurs must have evolved by 240 million years ago, about 10 million years earlier than previously thought. This suggests that dinosaurs evolved during the immediate aftermath of the massive end-Permian extinction, rather than appearing after ecosystems had restabilized in the Triassic period.

Through their ongoing fieldwork, Angielczyk, Nesbitt, and Sidor continue to make new discoveries in Tanzania, proving that researchers still have much to learn about the earliest dinosaurs and the creatures that came before them. ITF

This exhibition is organized by The Field Museum. This project is made possible by a grant from the U.S. Institute of Museum and Library Services





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NOW OPENI



Your Legacy: Nurturing the Next Generation

By Robin C. Mucha, Legacy Giving Director

IN 1993 TRUSTEES OF THE FIELD MUSEUM CREATED THE EDWARD E. AYER LEGACY SOCIETY NAMED IN HONOR OF A FOUNDER, TRUSTEE, AND THE FIRST



PRESIDENT OF THE MUSEUM. Edward E. Ayer (1841–1927) was a leader in the cultural growth of Chicago and an avid collector. Ayer strengthened The Field's core collection through several personal gifts and anthropological artifacts purchased on behalf of the museum over a period of 33 years. He found his greatest pleasure as a collector; at the forefront of his selection of artifacts was the idea that they were for the public. "I was determined if my prosperity continued," Ayer remarked, "to do something that would give the boy coming after me a better chance for an education than I had been able to get."

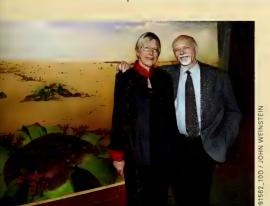


The Edward E. Ayer Legacy Society honors extraordinary people who remember
The Field Museum through bequests, trusts, and other planned and life income gifts.
Membership is open to all individuals who have made an estate provision for The
Field Museum regardless of the amount. Members will be extended unique privileges
and invited to exclusive Society events and more. ITF

ROBERT & ROSE WAGNER

Edward E. Ayer Legacy Society members Robert and Rose Wagner view
The Field Museum as a place of beauty, calm, and inspiration. The Museum
helps them feel connected to the world.

When asked why The Field is meaningful to them, Robert states that he is impressed with the conservation and scientific research. He also finds



the exhibitions highly informative.
"Touring the Museum is a revelation,"
says Robert.

Rose adds, "The Museum's position at the juncture of science, nature, and art makes it uniquely able to present the beauty and importance of the natural world."

Legacy Giving

If you have already made or are planning to make The Field Museum one of your beneficiaries, please let us know so that we may thank you. We are here to help you create your philanthropic vision and strategy; you may discover possibilities for greater impact than you ever imagined. Please call Robin Mucha, Legacy Giving Director, today at 312.665.7285 or rmucha@fieldmuseum.org. For more information, please visit the Planned and Legacy Giving website at fieldmuseum.org/support/plannedgiving.







In the Spotlight:

Haida Totem Poles By Franck Mercurio, Editor

RISING MORE THAN 40 FEET ABOVE THE FLOOR OF STANLEY FIELD HALL, TWO TOTEM POLES welcome

> visitors to The Field Museum. Created by the Haida people in the mid-1800s, these iconic objects were first displayed in Chicago at the 1893 World's Columbian Exposition.

Originally, the poles stood in villages on Haida Gwaii, an archipelago off the coast of British Columbia. These islands, along with others in southeast Alaska, are home to the Haida, one of the Native peoples of the Pacific Northwest.

Clan leaders in Haida society commissioned totem poles for display in front of their longhouses. The carvings depict figures from traditional stories and family histories.

Curator of North American Collections, Alaka Wali, says "Totem poles were often visible symbols of the owner's prestige and high status. The poles help us to understand the complex kinship and economic relationships that structured life on the Northwest Coast."

Trade in sea otter furs brought wealth to Haida Gwaii in the 1800s and fueled a boom in totem pole carving. But this "golden age" of totem poles was short-lived. Contact with Europeans also brought diseases, especially smallpox and tuberculosis. By 1890, only 700 people remained on Haida Gwaii, down from a mid-1800s population of some 7,000.

Political, economic, and social forces-including the influence of Christian missionaries-pressured many Haida to sell their totem poles. In stepped the collectors. Many were driven by opportunity, but others were motivated to preserve the remnants of what they perceived to be a vanishing culture.

Within this latter context, Chicagoan Edward E. Ayer acquired one of The Field Museum poles in 1888. An avid collector of Native American objects, Ayer purchased the pole for his own personal collection from David McKay, a Haida clan leader. In 1891, agent James Deans obtained the second pole for the World's Columbian Exposition from Tom Stevens, another Haida clan leader. Both totem poles were displayed at the Chicago fair in 1893 and eventually accessioned into the Museum's collections.

In 2014, The Field will redevelop the displays surrounding the Haida poles. Researchers at the Haida Gwaii Heritage Centre in Skidegate, British Columbia, will help Museum staff reconstruct the early history and meaning of these poles, adding significantly to our understanding of these icons of Native American culture. ITF

TOTEM POLE IMAGES. © GREG MERCER

World's Fair Scavenger Hunt

Explore objects in the Museum that originated at the 1893 world's fair with a Members' only scavenger hunt. Visit the Membership Desk for a hardcopy list or download an electronic version at fieldmuseum.org/ support/member-events. When you're finished, be sure to turn in your completed scavenger hunt at the Membership Desk for a prize!

Avoid the Linesat Spring Break Speed!

We're excited to see our members during spring break! Remember to reserve your member tickets two to three business days in advance of your visit-and spend less time waiting in line. Pick up your tickets at the south Membership desk by presenting your current membership card and photo ID to a Membership representative. Enhance your visit with a 10 percent discount at the Museum's new stores and restaurants.

Reserve your special exhibition tickets at fieldmuseum.org/membership or call Member Services at 312.665.7705. Happy Spring!



Field Museum Memberships

Time to renew your membership?

Call 312.665.7700 · Mon.-Fri., 8:30am-4:30pm Visit fieldmuseum.org/membership

Field memberships also make great gifts!



The Field Museum salutes the people of Chicago for their long-standing support of the Museum through the Chicago Park District. Programming is partially supported by the Illinois Arts Council, a state agency.

museum campus^{neighbors}

SHEDD AQUARIUM

Feel the wonder at Shedd Aquarium! Let a sea star tickle your fingers in Polar Play Zone. In the Great Lakes gallery, reach into the sturgeon touch pool to feel the bony armor that has protected these giant fish since the days of the dinosaurs. Then see dolphins soar and hear belugas sing during the aquatic show in the Abbott Oceanarium. For a multisensory experience, check out the newest 4-D offering,

Sea Monsters: A Prehistoric Adventure. Find out all that's happening at www.sheddaguarium.org.

ADLER PLANETARIUM

Don't miss Cosmic Wonder, the museum's newest show open now through April 1, 2014. Visitors are invited to look up as the night sky reveals the mysteries of our Universe in the most immersive space environment ever created. Voted Chicago's "Best Evening Museum Event" by the Chicago Reader, Adler After Dark is the place to be the third Thursday of every month. Exclusively for adults, this evening event offers open access, unlimited shows, and unique entertainment. Learn more at www.adlerplanetarium.org.

Program Tickets + Info 312.665.7400 General Museum Info 312.922.9410 Cale In Cale January

Art and Science Spotlight*

1.18, 11am–2pm > Join us for storytelling sessions with Genevieve Waller's Crooked Door Storytelling in association with the Old Town School of Folk Music. Hear stories about family, fairy tales, and nature, then head to the Art Studio to create your own art work inspired by YOU!

february

Art and Science Spotlight*

2.15, 11am-2pm > Patterns can be found in all forms of nature. Have fun looking for color, shape, and spiral patterns in the *Crown Family PlayLab* and throughout the Museum. Stop by the Art Studio to make a unique mosaic design using patterns found in nature.

march

Art and Science Spotlight*

3.15, 11am-2pm > Watch as local artist, Ian Sherwin, builds a unique sculpture illustrating the marvels of biomechanics, then use your drawing skills to create your own one-of-a kind species. Will it be a super-fast runner, a spinner of steel webs, or a creature that can detach its jaw to grab its prey?

april

Art and Science Spotlight*

4.19, 11am-2pm > Meet with conservators from our Action Science Center and see all the ways that the Museum helps get people outdoors. Learn about natural history experiences at local conservation areas and see how you can connect with nature in your neighborhood. Stop by the Art Studio for a seed planting activity you can take home with you.

Please note that our **family day program** is now called **Art and Science Spotlight** and will continue to feature artists, performers, and scientists throughout the year.

*FREE with Museum Admission
// in the Crown Family PlayLab

overnights FDINOS at the museum

Bring your sleeping bag and explore one of the most exciting spots in town! Dozin' with the Dinos is a chance for children ages 6–12 to spend the night at The Field Museum. Enjoy activities like games from around the world or see and touch live insects from your



own backyard. Enjoy a snack break to fuel yourself for a self-guided tour of *Inside Ancient Egypt*—in the dark! (Make sure to bring your flashlight!) Before you know it, you're listening to bedtime stories in the shadow of SUE the *T. rex* and crawling into your sleeping bag in one of our wondrous exhibitions. Fridays, 5:45pm to 9am the following morning.

Standard Overnight: \$63, \$55 members and groups

Premium Packages: Families can also sign up for Premium Package 1 and sleep in our *Evolving Planet* exhibition or book the Premium Package 2 with Tour and sleep in *Evolving Planet* and add a behind-the-scenes tour with a Field Museum scientist!

Premium Package 1: \$75, \$65 members

Premium Package 2 (with tour): \$87, \$77 members

2014 DATES > January 10 & 31 • February 7, 21, & 28 March 14 & 28 • April 4 • May 9 & 30

Visit **fieldmuseum.org/overnights** or call 312.665.7400 to register. Tickets for the 2014 season are on sale now.

summer

Summer Teen Volunteers

Summer Teen Volunteers are trained to interact with visitors of all ages, spending half of their day in the *CrownFamily Playlab*, The Field Museum's early childhood center, and the other half of their day in the Museum's exhibitions facilitating hands-on interpretive carts. Teens are asked to commit to one day a week for a minimum of eight days between June 16 and August 17.

Interested candidates must complete an online application at fieldmuseum.org/happening/programs/teens/teens-field or email teens@fieldmuseum.org for more information.

Applications are available January 17 through March 12.

fieldmuseum.org

digital connections

Virtual Visits from The Field March 2014

Bring the Museum into your classroom with Virtual Visits from The Field. Through this program, students virtually visit the Museum's mammal wet lab and meet scientist Bill Stanley, Director of Collections.

For more information see page 8 or visit fieldmuseum.org/virtualvisits.

Biomechanics: Design Jam April 2014 > 9am-4pm

Join The Field Museum for a design jam challenge! Tour the upcoming Biomechanics exhibition and then design a solution to a real world problem using nature as inspiration.

Youth between 15 and 16 are eligible to apply. This two-day program is FREE, and snacks are provided. Space is limited. Applications are available on the Museum's website.

Collections: What Do You Collect?

Ongoing > People all over the world have collections. Some collect coins, rocks, dolls, and more. In this family friendly temporary exhibit in the Crown Family PlayLab, discover what The Field Museum collects and discover specimens and



artifacts collected by families just like yours! Please email playlab@fieldmuseum.org for an application to have your collection displayed as a part of this temporary exhibit. Just think, the collection you see next in the Crown Family PlayLab might be yours!

EDUCATION DEPT / FIELD MUSEUM



Meet a Scientist

Fridays > 10am-12pm

Stanley Field Hall or East Entrance (locations vary)

Every Friday from 10am to noon, scientists will be out in the Museum sharing the wonders of our collections and highlights of their research. Hear about their work, see real artifacts and specimens from the over 24 million objects not on display, and experience the Museum like never before. Topics will range from birds to insects, mammals to plants, and pottery to spear points. For a list of scheduled scientists, visit fieldmuseum.org/ happening.

Don't miss these exhibitions before they close!

Images of the Afterlife: Facing the Ancient Egyptians Extended through January 19, 2014

Come face to face with two of the Museum's mummies! Artist Elisabeth Daynès used CT scans of Egyptian mummies to produce realistic portraits of people who lived and died thousands of years ago.

This exhibition was organized by The Field Museum.

Fractured: North Dakota's Oil Boom Through January 19, 2014

Journey to the prairies of North Dakota with nationally acclaimed photographer Terry Evans and award-winning journalist and filmmaker Elizabeth Farnsworth and explore the impact of the current oil boom on the Williston Basin region.

This exhibition was organized by The Field Museum.

State of Deception: The Power of Nazi Propaganda

Through February 2, 2014

This exhibition illustrates the Nazi Party's keen understanding of communication that enabled them to foster a climate of hatred, suspicion, and most importantly, indifference toward human suffering.

State of Deception: The Power of Nazi Propaganda was produced by the United States Holocaust Memorial Museum with support from The Blanche and Irvina Laurie Foundation. Katherine M. and Leo S. Ullman, and the Lester Robbins and Sheila Johnson Robbins Fund

Generous support provided by The Crown Family.

Dino Camp 2014 > ages 3-4 (with adult caregiver)*

I Spy a Dinosaur! Do you? Dino Camp is an early childhood camp, designed expressly for young explorers ages 3-4 with their caregivers. During the two days of discovery, we will learn how to spot a dinosaur, see SUE's skull, dig for dino bones, and much more!

9am-11:30am > four sessions are available

1: Tuesdays, June 3 & 10

3: Tuesdays, June 17 & 24

2: Wednesdays, June 4 & 11 4: Wednesdays, June 18 & 25

\$67 for members, \$76 for non-members.

To register please visit fieldmuseum.org/dinocamp for more information.

*All campers must be between the ages of 3 and 4 and attend with an adult caregiver. One adult caregiver is required for every two children.

Summer World's Tour > ages 5-10

Summer World's Tour offers a week of adventure in Chicago's premier museums for children entering kindergarten through fifth grade in the fall of 2014. In this week-long camp, campers will explore our solar system as an astronomer at the Adler Planetarium, discover the marvels of natural engineering through biomechanics at The Field Museum, and become an aquatic scientist, exploring underwater environments at the Shedd Aquarium.

9am-3pm > four one-week sessions are available

1: July 7-11

3: July 21-25

2: July 14-18

4: July 28-August 1

\$265 for members, \$295 for non-members. Registration begins February 3. Visit www.adlerplanetarium.org/ camps to register.





1400 South Lake Shore Drive Chicago, IL 60605-2496

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Movement Inspired Merchandise



After you walk, skip, flap, and hop through The Machine Inside: Biomechanics, visit the Biomechanics Store to browse movement-inspired merchandise from all over the world. From lenticulars to robotics—like this clap-activated, walking saber-toothed cat-the Museum Stores propel learning into motion! As always, you can shop 24 hours a day at fieldmuseum.org.

Remember, Field Museum Members receive a 10 percent discount on all Store purchases—and each purchase supports the Museum's public and scientific programs.



There's a new dinosaur in the Museum's Adopt a T. rex program: a fun-loving, veggie-eating Brachiosaurus! Support The Field Museum and take a dinosaur home with "Adopt a Brachiosaurus."

With your tax deductible gift you receive:

- · A carrier crate and your very own plush Brachiosaurus
- · A fact sheet
- · Your certificate of adoption
- · An official species tag
- A sticker

- · An invitation to the most exclusive, engaging event at The Field Museum, Members' Nights on March 6 and 7. (See page 7.)
- · An opportunity to participate in the "Adopt Showcase" on the Museum's Flickr page and show us where you go with your dino for a chance to win a prize.

For more information on your Dino delivery, go to fieldmuseum.org/adopt-trex or call us at 312.665.7700.

